IN THE CLAIMS

Please amend the claims as follows:

1.   (Currently Amended) A method ~~at a first node~~ for detecting nodes in a ring <u>computer</u> network, comprising:

determining whether a network token has arrived at a node within a preselected network timeout period;

if the network token has not arrived within a preselected network timeout period, generating an arbitration token;

receiving the arbitration token at a first node;

determining at the first node whether the arbitration token was modified by a higher priority node;

if the arbitration token was not modified by a higher priority node, transmitting a first discovery marker periodically from the first node;

receiving a packet <u>at a second node</u>;

·for each discovery marker in the packet, saving topology information associated with the discovery marker;

adding a ~~first~~ <u>second</u> discovery marker to the packet when the packet does not contain ~~the~~ ~~first~~ <u>a second node</u> discovery marker, wherein the ~~first~~ second node discovery marker comprises topology information associated with the ~~first~~ second node; and

sending the packet to a next node in the network.

2.   (Currently Amended) The method of claim 1, further comprising:

when the packet contains a discovery ~~packet~~ <u>marker</u> associated with ~~a master~~ <u>the first</u> node, clearing old topology information <u>on the second node</u> prior to saving the topology information associated with the discovery marker <u>associated with the first node</u>.

3.   (Original) The method of claim 1, further comprising:

when the packet does contain the first discovery marker, removing the first discovery marker from the packet.

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Page 4
Dkt: 1384.015US1

4.   (Original) The method of claim 1, wherein the topology information further comprises:

a connection state, a control master state, and node characteristics.

5.   (Original) The method of claim 1, wherein the discovery marker further comprises:

a packet ring master field;

a control master field; and

the topology information.

6.   (Original) The method of claim 1, wherein the nodes further comprise blades in a switch.

7.   (Currently Amended) A node in a ring computer network, comprising:

a ring controller, wherein the ring controller:

  receives a packet containing a network token;

       if the network token does not arrive within a preselected network timeout period, generates

an arbitration token;

  if the packet contains an arbitration token, checks to see if it was modified by a higher priority

node and if not, sets the node as a token master node;

       for each discovery marker in the packet, saves topology information associated with the

discovery marker;

       adds to the packet a first discovery marker when the packet does not contain a first

discovery marker, wherein the first discovery marker comprises topology information associated

with the node; and

       sends the said packet to a next node in the network.

8.   (Currently Amended) The node of claim 7, wherein:

       when the packet contains a discovery ~~packet~~ marker associated with ~~a master~~ the first

node, the ring controller is to clear old topology information on the second node prior to saving

the topology information associated with the discovery marker associated with the first node.

9.   (Original) The node of claim 7, wherein:

when the packet does contain the first discovery marker, the ring controller is to remove the first discovery marker from the packet.

10.   (Original) The node of claim 7, wherein the topology information further comprises:

a connection state, a control master state, and node characteristics.

11.   (Original) The node of claim 7, wherein the discovery marker further comprises:

a packet ring master field;

a control master field; and

the topology information.

12.   (Original) The node of claim 7, wherein the node further comprises a blade in a switch.

13.   (Currently Amended) A switch, comprising:

a ring network; and

a plurality of blades connected ~~in a~~ to the ring network, wherein each blade further comprises a ring controller, wherein the ring controller ~~is to~~:

receives a packet containing a network token;

if the network token does not arrive within a preselected network timeout period, generates an arbitration token;

if the packet contains an arbitration token, checks to see if it was modified by a higher priority blade and if not, sets the blade as a token master blade;

for each discovery marker in the packet, saves topology information associated with the discovery marker;

adds to the packet a first discovery marker when the packet does not contain a first discovery marker, wherein the first discovery marker comprises topology information associated with the first blade; and

send the said packet to a next blade.

14.   (Currently Amended) The switch of claim 13, wherein:

when the packet contains a discovery marker associated with a master the first blade, the ring controller is to clear old topology information on the second blade prior to saving the topology information associated with the discovery marker associated with the first blade.

15.   (Original) The switch of claim 13, wherein:

the ring controller is to remove the first discovery marker from the packet when the packet does contain the first discovery marker.

16.   (Original) The switch of claim 13, wherein the topology information further comprises:

a connection state, a control master state, and node characteristics.

17.   (Original) The switch of claim 13, wherein the discovery marker further comprises:

a packet ring master field;

a control master field; and

the topology information.

18.   (Withdrawn) A data structure stored on computer-readable media, comprising:

a packet-ring master field to indicate whether an originating blade is a current packet-ring master;

a control-blade master field to indicate whether the originating blade is a control-blade master;

a blade characteristics field to specify per-blade characteristics;

a connection state filed to indicate a blade's current connection state;

a blade identification field to specify the originating blade; and

a marker field to indicate that the data structure is a blade discovery marker.

19.   (Withdrawn) The data structure of claim 18, wherein the current connection state further indicates the current connection state for a primary neighbor and a protect-ring neighbor of the originating blade.

20.   (Withdrawn) A method at a first node in a ring network for arbitration, comprising:

when a period of time has expired without receiving of an arbitration token, transmitting the arbitration token on the ring network;

receiving the arbitration token;

when a node identifier associated with the arbitration token is at a lower priority than a node identifier associated with the first node, replacing the node identifier associated with the arbitration token with the node identifier associated with the first node and transmitting the arbitration token on the ring network.

21.   (Withdrawn) The method of claim 20, further comprising:

when the node identifier associated with the arbitration token is at a higher priority than the node identifier associated with the first node, transmitting the arbitration token on the ring network.

22.   (Withdrawn) The method of claim 20, further comprising:

when the node identifier associated with the arbitration token is at an equal priority to the node identifier associated with the first node, converting the arbitration token to a normal packet and transmitting the normal packet on the ring network.

23.   (Withdrawn) The method of claim 21, further comprising:

when the node identifier associated with the arbitration token is at the higher priority than the node identifier associated with the first node, incrementing a time-to-live field in the arbitration token.

24.   (Withdrawn) The method of claim 23, wherein receiving the arbitration token further comprises:

when the time-to-live field for the arbitration token is exceeded, converting the arbitration token to a normal packet and transmitting the normal packet on the ring network.

25.   (Withdrawn) A node in a ring network, comprising:

a ring controller to:

transmit an arbitration token on the ring network when a period of time has expired without receipt of the arbitration token,

receive the arbitration token, and

when a node identifier associated with the arbitration token is at a lower priority than a node identifier associated with the first node, replace the node identifier associated with the arbitration token with the node identifier associated with the first node and transmit the arbitration token on the ring network.

26.   (Withdrawn) The node of claim 25, wherein the ring controller further is to:

when the node identifier associated with the arbitration token is at a higher priority than the node identifier associated with the first node, transmit the arbitration token on the ring network.

27.   (Withdrawn) The node of claim 25, wherein the ring controller further is to:

when the node identifier associated with the arbitration token is at an equal priority to the node identifier associated with the first node, convert the arbitration token to a normal packet and transmit the normal packet on the ring network.

28.   (Withdrawn) The node of claim 26, wherein the ring controller further is to:

when the node identifier associated with the arbitration token is at the higher priority than the node identifier associated with the first node, increment a time-to-live field in the arbitration token.

29.   (Withdrawn) The node of claim 28, wherein the ring controller further is to:

when the time-to-live field for the received arbitration token is exceeded, convert the arbitration token to a normal packet and transmit the normal packet on the ring network.

30.   (Amended) A computer-readable media comprising instructions, which when read and executed by a computer comprise:

detecting arrival of a network token;

if the network token does not arrive within a preselected network timeout period,

generating an arbitration token;

receiving the arbitration token at a first node;

determining at the first node whether the arbitration token was modified by a higher

priority node;

if the arbitration token was not modified by a higher priority node, transmitting a first

discovery marker periodically from the first node;

receiving a packet at a second node;

for each discovery marker in the packet, saving topology information associated with the

discovery marker;

adding a ~~first~~ second node discovery marker associated with the second node to the

packet when the packet does not contain ~~the first~~ the second node discovery marker, wherein the

~~first~~ second node discovery marker comprises topology information associated with the ~~first~~

~~node in a ring network~~ second node; and

sending the packet to a next node in the network.

31.   (Amended) The computer-readable media of claim 30, wherein the instructions further

comprise:

when the packet contains a discovery ~~packet~~ marker associated with ~~a master~~ the first

node, clearing old topology information on the second node prior to saving the topology

information associated with the discovery marker associated with the first node.

32.   (Original) The computer-readable media of claim 30, wherein the instructions further

comprise:

when the packet does contain the first discovery marker, removing the first discovery

marker from the packet.

33.   (Original) The computer-readable media of claim 30, wherein the topology information

further comprises: a connection state, a control master state, and node characteristics.